

REMARKS

The Examiner's careful review and examination of the subject application are noted and appreciated.

The present invention relates to an oxygen electrode including a cathode active material having oxygen storage capacity comprising a manganese oxide redox couple which provides for oxygen storage capacity via reduction/oxidation between two different manganese oxide valency states.

Applicants have carefully reviewed the above-identified Office Action. Applicants contend that, in view of the clarifying remarks set forth herein, all bases of objection and rejection have been overcome. Accordingly, Applicants respectfully request withdrawal of the pending rejections and allowance of the claims submitted.

OBVIOUSNESS-TYPE DOUBLE PATENTING

The rejection of claims 1-14 based on the judicially created doctrine of obviousness-type double patenting over Claims 1-3, 6, 8-15, and 18 of U.S. Pat. App. Ser. No. 10/678,719 has been obviated and should be withdrawn. A terminal disclaimer in compliance with 37 C.F.R. §1.321 is filed herewith.

The rejection of claims 1-14 based on the judicially created doctrine of obviousness-type double patenting over Claims 1, 3-9, and 11-16 of U.S. Pat. No. 6,703,156 has been obviated and should be withdrawn. A terminal disclaimer in compliance with 37 C.F.R.

§1.321 is filed herewith.

The rejection of claims 1-14 based on the judicially created doctrine of obviousness-type double patenting over Claims 1-14 of U.S. Pat. No. 6,777,125 has been obviated and should be withdrawn. A terminal disclaimer in compliance with 37 C.F.R. §1.321 is filed herewith.

The rejection of claims 1-14 based on the judicially created doctrine of obviousness-type double patenting over Claims 1-14 of U.S. Pat. No. 6,783,891 has been obviated and should be withdrawn. A terminal disclaimer in compliance with 37 C.F.R. §1.321 is filed herewith.

The rejection of claims 1-14 based on the judicially created doctrine of obviousness-type double patenting over Claims 1, 3-11, 13-23, 25-28, and 31-33 of U.S. Pat. No. 6,620,539 has been obviated and should be withdrawn. A terminal disclaimer in compliance with 37 C.F.R. §1.321 is filed herewith.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

For the reasons which follow hereinafter, the rejection of claims 1 and 8 under 35 U.S.C. §102 as being anticipated by Kaneko et al. is respectfully traversed and should be withdrawn.

Kaneko et al. disclose a redox battery. The redox battery uses a manganese redox system to provide fuel to the positive

electrode (See col. 1, lines 49-50 and 64). The manganese redox system is a positive electrolyte comprising an aqueous solution containing an ion, such as manganese, with variable valencies as an energy source. (See col. 1, lines 49-50 and 63-64). Compartments within the redox battery are filled with the positive electrolyte which is supplied to the positive electrode. (See col. 2, lines 58-68). The positive electrode of the redox battery is charged by supplying the positive electrolyte to the positive electrode. (See Col. 3, lines 5-10).

In contrast, the presently pending invention claims an oxygen electrode including a cathode active material having oxygen storage capacity comprising a manganese oxide redox couple which provides for oxygen storage capacity via reduction/oxidation between two different manganese oxide valency states. Kaneko et al. do not disclose a cathode as presently claimed. In particular Kaneko et al. disclose an electrolyte including an ion with variable valencies as an energy source, not a cathode comprising a valency change material for storing and supplying oxygen as presently claimed. As such, the presently pending invention is readily distinguishable and clearly patentable over the cited reference and the rejection should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

For the reasons which follow hereinafter, the rejection of

claims 1-8 and 11-14 under 35 U.S.C. §103 as being unpatentable over Kaneko et al. in view of Sklarchuk (U.S. Pat. No. 3,791,896) is respectfully traversed (has been obviated, in part by appropriate amendment, and is traversed, in part,) and should be withdrawn.

Kaneko et al. teach a redox battery. The redox battery uses a manganese redox system to provide fuel to the positive electrode (See col. 1, lines 49-50 and 64). The manganese redox system is a positive electrolyte comprising an aqueous solution containing an ion, such as manganese, with variable valencies as an energy source. (See col. 1, lines 49-50 and 63-64). Compartments within the redox battery are filled with the positive electrolyte which is supplied to the positive electrode. (See col. 2, lines 58-68). The positive electrode of the redox battery is charged by supplying the positive electrolyte to the positive electrode. (See Col. 3, lines 5-10).

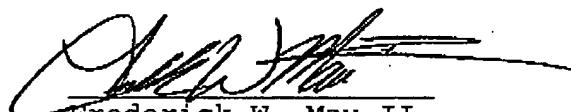
In contrast, the present invention claims an oxygen electrode including a cathode comprising a valency change material for storing and supplying oxygen via a change in the valency state of the valency change material. Kaneko et al. in view of Sklarchuk do not teach or suggest an oxygen electrode as presently claimed. In particular Kaneko et al. disclose an electrolyte including an ion with variable valencies as an energy source, not a cathode comprising a valency change material for storing and supplying

oxygen as presently claimed. As such, the presently pending invention is readily distinguishable and clearly patentable over the cited reference and the rejection should be withdrawn.

Accordingly, Applicant submits that the present amendment places the application in condition for allowance. The Examiner is respectfully requested to pass the application to issuance.

The Examiner is respectfully invited to call the Applicants' representative should it be deemed beneficial to further advance prosecution of the application.

Respectfully submitted,



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